WHAT IS CLAIMED IS:

1-35 (Canceled)

~~36.~~ (New) A method for repairing and/or waterproofing and/or insulating and/or reinforcing and/or restoring the structural integrity of wall systems, consisting:

-- in providing spaced injection holes within a wall system in a manner suitable to pass through cavities that exist in the wall system;

-- in inserting injection tubes in said injection holes;

-- in injecting in said injection holes, through said injection tubes, a substance that expands after injection as a consequence of a chemical reaction.

~~37.~~ (New) The method according to claim 36, wherein during injection said injection tubes are retracted gradually, in the opposite direction with respect to insertion, along the corresponding injection holes in order to allow said substance to penetrate the cavities crossed by, or proximate to, said injection holes.

~~38.~~ (New) The method according to claim 36, wherein said injection holes are formed substantially at right angles to the largest surface of the cavities inside the wall system.

~~39.~~ (New) The method according to claim 36, wherein said substance is constituted by a closed-cell polyurethane foam.

~~40.~~ (New) The method according to claim 36, wherein said substance is constituted by an MDI isocyanate and a mixture of polyols.

~~41.~~ (New) The method according to claim 36, wherein said substance has a maximum expansion pressure substantially comprised between 20 kPa and 200 kPa.

~~42.~~ (New) The method according to claim 41, wherein said substance has, during expansion, a reduction in the maximum expansion pressure, i.e. a dissipation after a degree of expansion thereof that may be less than 5% of its initial volume.

8 ~~43.~~ (New) The method according to claim 36, wherein said substance has a maximum expansion pressure that is lower than a bursting limit pressure of the wall system in which it is injected.

9 ~~44.~~ (New) The method according to claim 36, wherein the reaction time of said substance is comprised between 3 and 60 seconds.

10 ~~45.~~ (New) The method according to claim 36, wherein a process of chemical reaction for expansion and said substance during expansion remain non-altered by water presence.

11 ~~46.~~ (New) The method according to claim 36, wherein said substance, once expanded and consolidated, maintains a non-altered state in the presence of water, or water containing acid and/or water rich in sulfates and/or carbonates or salts in general.

12 ~~47.~~ (New) The method according to claim 36, wherein said substance, once injected and hardened, has a tensile strength substantially comprised between an average of 180 N/cm^2 at a density of 200 kg/m^3 and 800 N/cm^2 at a density of 500 kg/m^3.

13 ~~48.~~ (New) The method according to claim 36, wherein said substance, once injected and hardened, has a compression strength substantially comprised between an average of 200 N/cm^2 at a density of 200 kg/m^3 and 1300 N/cm^2 at a density of 500 kg/m^3.

14 ~~49.~~ (New) The method according to claim 36, wherein said substance, prior to the beginning of the chemical reaction of expansion, has a viscosity substantially comprised between 200 mPa·s and 300 mPa·s at 20 °C.

15 ~~50.~~ (New) The method according to claim 49, wherein viscosity of said substance passes from a value of 200-300 mPa·s to a value that tends to infinity in a time interval comprised between 20 and 150 seconds starting from the beginning of the chemical reaction of expansion of said substance.

16 ~~51.~~ (New) The method according to claim 45, wherein said substance, once injected and hardened, has a lower relative density than water.

17 ~~52.~~ (New) The method according to claim 36, wherein said injection

holes are produced along substantially vertical directions, and in that said substance is injected through said injection tubes by gradually retracting said injection tubes upward.

18 ~~53.~~ (New) The method according to claim 36, wherein said injection holes are produced along directions that are inclined with respect to the vertical and in that the injection through said injection tubes is performed while gradually retracting said injection tubes upward.

19 ~~54.~~ (New) The method according to claim 36, wherein a direction of the longitudinal extension of said injection holes is contained between planes of arrangement of two larger opposite faces of the wall system.

20 ~~55.~~ (New) The method according to claim 36, wherein the distance between two contiguous injection holes is substantially comprised between 0.20 m and 2.00 m.

21 ~~56.~~ (New) The method according to claim 36, wherein a diameter of said injection holes is substantially comprised between 4 mm and 40 mm.

22 ~~57.~~ (New) The method according to claim 36, wherein said injection tubes have an inlet that is connected to an injection device and multiple outlets for passage of said substance.

23 ~~58.~~ (New) The method according to claim 57, wherein the overall passage section of said outlets of said injection tubes is greater than the passage section of said inlet.

24 ~~59.~~ (New) The method according to claim 37, wherein said injection tubes are constituted by, or treated with, lubricating material in order to facilitate retraction thereof during injection of said substance.

25 ~~60.~~ (New) The method according to claim 37, comprising during the injection of said substance, adjusting a rate of retraction of the injection tubes according to a pressure and/or flow-rate of injection of said substance.

26 ~~61.~~ (New) The method according to claim 36, comprising prodiving means for interrupting the injection of said substance.

27 ~~62.~~ (New) The method according to claim 60, wherein the injection

pressure is measured by way of a pressure gauge that is arranged upstream of the inlet of said injection tubes and is connected to the feeding tube for injection of said substance.

28 ~~63.~~ (New) The method according to claim 60, wherein the injection flow-rate is measured by means of a flow-rate measurement device that is arranged upstream of the inlet of said injection tubes and is connected to the tube for feeding the injection of said substance.

29 ~~64.~~ (New) The method according to claim 60, comprising detecting presence of said substance and the pressure applied thereby during expansion at regions of the wall system that are proximate to regions affected by the injection.

30 ~~65.~~ (New) The method according to claim 64, comprising measuring the presence of said substance and the pressure applied thereby during expansion, in the regions of the wall system that are proximate to the regions affected by the injection, by way of piezometer pipes inserted in measurement holes provided in the wall system at preset distances from the injection holes in which said injection tubes are inserted.

31 ~~66.~~ (New) The method according to claim 36, comprising constantly monitoring during the injection of said substance the movement of the wall system along directions that are substantially perpendicular to the planes of arrangement of two larger faces of the wall system.

32 ~~67.~~ (New) The method according to claim 66, comprising following by way of a monitoring device with laser levels the movement of the wall system along directions that are substantially perpendicular to the planes of arrangement of the two larger faces of the wall system.

33 ~~68.~~ (New) The method according to claim 36, comprising preliminary interventions to limit escape of said substance from outlets of said cavities that lead out of the wall system.

34 ~~69.~~ (New) The method according to claim 68, wherein said preliminary interventions consist in performing column-type injections of a

substance that expands by chemical reaction in the soil directly in the interface between the soil and the wall system and/or in regions of the ground that are spaced from the wall system.

35 ~~70.~~ (New) The method according to claim 68, wherein said preliminary interventions consist in applying a sheet of geotextile fabric to the surface of the wall system where said outlets of the cavities are present and in performing a spray covering of said fabric with a substance that expands by chemical reaction.